

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (canceled)

2. (previously presented): A positive electrode active material for a secondary battery comprising a lithium manganate and a lithium nickelate, wherein said lithium manganate is a particle compound having a spinel structure represented by the following formula (1) or said compound in which some of Mn or O sites are replaced with another element; and

an Mn elution amount when immersing said particles in a mixture comprising an electrolyte salt and a carbonate solvent is 1000 ppm or less as determined by inductive coupling plasma emission analysis; and

a specific surface area of said particles as determined by the BET method is 0.3 m²/g to 0.8 m²/g both inclusive: Li_{1+x}Mn_{2-x}O₄ (1)(in said formula (1) above, 0.15 ≤ x ≤ 0.24).

3. (canceled).

4. (previously presented): The positive electrode active material for a secondary battery according to claim 2, wherein said lithium nickelate is a compound represented by the following formula (2) or said compound in which some of Co or O sites are replaced with another element:

LiNi_{1-y}Co_yO₂ (2)(in said formula (2) above, 0.05 ≤ y ≤ 0.5).

5. (previously presented): The positive electrode active material for a secondary battery according to claim 2, wherein said lithium nickelate is a compound represented by the following formula (3):



(in said formula (3) above, M comprises at least one of Al and Mn; $0.1 \leq \alpha \leq 0.47$; $0.03 \leq \beta \leq 0.4$; and $0.13 \leq \alpha + \beta \leq 0.5$).

6. (previously presented): The positive electrode active material for a secondary battery according to claim 2, wherein said lithium nickelate is a compound represented by the following formula (4): $\text{LiNi}_{1-p-q}\text{Co}_p\text{M}_q\text{O}_2(4)$

(in said formula (4) above, M comprises at least one of Al and Mn; $0.1 \leq p \leq 0.5$; $0.03 \leq q \leq 0.5$; and $0.13 \leq p + q < 1$).

7. (previously presented): The positive electrode active material for a secondary battery as claimed in claim 2, wherein when a weight ratio of said lithium manganate to said lithium nickelate is a: (100-a), "a" is in a range of $20 \leq a \leq 80$.

8. (previously presented): A positive electrode for a secondary battery comprising said positive electrode active material for a secondary battery as claimed in claim 2 which is bound via a binder.

9. (previously presented): A secondary battery comprising at least a positive electrode and a negative electrode, comprising said positive electrode active material for a secondary battery as claimed in claim 2.

10. (previously presented): The secondary battery as claimed in claim 2, wherein said negative electrode comprises amorphous carbon as a negative electrode active material.

11. (withdrawn): A process for manufacturing said positive electrode active material for a secondary battery as claimed in claim 2, comprising the steps of: mixing an Mn source and an Li source to prepare a first mixture, which is then subjected to a first calcination at a temperature of no less than 800 °C; and

mixing a first-calcination product obtained by said first calcination with said Li source to prepare a second mixture with a higher rate of said Li source than said first mixture, and conducting a second calcination of said second mixture at a temperature of no less than 450 °C and lower than said first calcination to obtain said lithium manganate, wherein a D₅₀ particle size of said Li source is 2 μm or less.

12. (new) The positive electrode active material for a secondary battery according to Claim 2, wherein a Mn elution amount of said lithium manganate particles is 1000 ppm or less.